

California Air Resources Board  
Workshop  
Issues Relating to the California Phase 3  
Reformulated Gasoline Regulations  
**Denatured Ethanol Specifications**

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# Standards for Denatured Ethanol

- Sulfur standard should apply to denatured ethanol
- ARB should establish guidance for the benzene, aromatic and olefin content of the denaturant used at the ethanol denaturing facility

# Restricted California Ethanol Supply

*A 2nd Opinion* has proposed denaturant specification standards that would promote a new market opportunity for products like alkylate while restricting flexibility for California refiners and domestic ethanol producers.



# Alkylate as a Denaturant

- Denaturants must be approved by the Bureau of Alcohol, Tobacco & Firearms along with ASTM prior to commercial use.
- While alkylate is approved as a denaturant under ASTM D-4806, we are not aware that the BATF has approved the use of alkylate as a denaturant.
- There is no assurance BATF would provide such approval.

# Other Concerns

- A *2nd Opinion* has suggested ARB establish denaturant specifications for sulfur, benzene, aromatic and olefin content based in the flat limits of CARFG 3 gasoline.

RFA and WSPA agree that the cap level of CARFG 3 should be considered in establishing guidance.

# Questions

- A *2nd Opinion* suggests a cap limit on midpoint for alkylate @ 220°F or “above”.
- A *2nd Opinion* suggests an RVP cap on denaturants.

ARB has not included T-50 in the “pertinent specifications”.

RFA believes the RVP measure is unnecessary and will ultimately reduce ethanol supply options for California refiners.

# Takeaways

The proposal by *A 2nd Opinion* leads to:

- Decreased ethanol supply options for California refiners
- Decreased flexibility for domestic ethanol producers
- Potential unforeseen consequences